

## 68-10 ImageMax (Project 01-28) (2/03)



The ImageMax is a portable, self-contained automatic processor specifically designed to follow the x-ray film developing guidelines from Eastman Kodak Corporation. Unlike conventional film processors, the ImageMax is uniquely designed in that the x-ray film remains stationary. Films are secured in specially designed holders while solutions are brought to them through custom-engineered valves using a combination of air pressure and vacuum. The ImageMax lacks rollers, gears, and belts commonly encountered with conventional processors and purportedly reduces maintenance requirements and film loss. The developer, fixer, and water

are contained in their own sealed, one-quart tank compartments that eliminate external plumbing requirements, and purportedly eliminates chemical odors and spills. An internal microprocessor automatically adjusts the developing process based on film type, developer temperature and chemistry age, while a front-panel LCD display annotates the status of the development cycle. The ImageMax is 18" W x 21"H x 15" D, weighs 49 pounds empty, and requires 115-volt AC current with a rating of 8 amperes. It will process films in a room temperature range of 60 to 85 degrees Fahrenheit and an optional, 28-pound daylight loader (21"W x 24"H x 21" D) eliminates the need for a darkroom. Additional accessories available for separate purchase include concentrated solutions with longer shelf life, staging boxes for film, and film holders. The ImageMax has a five-year limited warranty.



### Manufacturer:

Dental X-ray Support Systems  
11616 E. Montgomery Suite 35  
Spokane, WA 99206  
(888) 230-9500  
(509) 242-1011  
(509) 242-1012 FAX  
[www.dxss.com](http://www.dxss.com)

### Suggested Retail Price:

\$3450.00 ImageMax Automatic X-ray Film Processor, includes:

- AC Power Cord
- DXSS WaterFlo
- Long handled cleaning brush
- Film Holders:
  - 3 size # 2
  - 1 size # 1
  - 1 size # 0

- Film holder "Light-Tight" staging box
- Film "Light-Tight" staging jar
- Two color-coded drain lines with quick connect fitting
- Red-developer & water
- Blue-fixer 1
- Owner's manual
- Laminated quick reference wall chart
- Four 8-oz bottles DXSS developer concentrate
- Four 8-oz bottles DXSS fixer concentrates
- 2-quart plastic pitcher with flexible spout

-Accessories:

- \$595.00--Image Max Daylight Loader
- \$80.00---Case of Developer & Fixer Concentrate (makes 32 quarts of solution)
- \$56.00---Intra Oral Film Holder "Light Tight Staging Box"
- \$8.00-----Film Holder size # 0
- \$8.00-----Film Holder size # 1
- \$8.00-----Film Holder size # 2
- \$8.00-----Film Holder size # 3
- \$8.00-----Film Holder size # 4
- \$9.00-----Owners' Manual
- \$7.00-----DXSS WaterFlo
- \$9.00-----2-Quart Plastic Pitcher
- \$4.00-----Quick Reference Wall Chart
- \$4.00-----Intra Oral "Light-Tight" Staging Jar
- \$9.00-----2 Drain Lines
- \$4.00-----Long Handled Brush

**Government Price**

\$2650.00 ImageMax Automatic X-ray Film Processor (includes individual components as listed above)  
\$450.00 ImageMax Daylight Loader

Accessories same price as listed above

**ADVANTAGES:**

- + Self-contained automatic radiographic film processor that requires only a power source.
- + Consistently produced high-quality radiographs.
- + Well designed and constructed of high-quality materials.
- + Eliminates radiographic film artifacts due to rollerless design.
- + Designed specifically for processing Kodak fast speed E and F films.
- + Instruction manual is well written and easy to understand.
- + Includes an informative, quick-reference laminated wall chart.
- + Is easy to set up, operate, and maintain.
- + Compact and portable, an excellent choice for small or remote clinics.
- + Optional daylight loader negates the need for a darkroom.
- + Operates at an ambient temperature range that negates need for warm-up time.
- + Contains solution temperature-change mechanisms to allow for faster processing times.
- + Internal microprocessor automatically adjusts processing time due to changes in the solutions - informs user of developing-cycle status and identifies any needed maintenance.
- + Data-port connection allows downloading of updated software from DXSS website if processing parameters change.
- + Can process up to 24 intraoral films simultaneously using specially designed film holders that are easily loaded into central-processing tank.
- + Can accommodate extraoral film up to 5 x12 cm as well as standard panoramic and cephalometric films.

- + "Light-Tight" staging containers are available to help reduce problems caused by non-continuous feed function.
- + Unit has quiet operation and annotates end of processing cycle by beeping.
- + Can be used with either pre-mixed or concentrated processing solutions.
- + Eight-ounce proprietary concentrated solutions are space and usage efficient compared to one-gallon premixed solutions.
- + Sealed-solution containers eliminate fumes and spills.
- + Electronic mechanism easily drains used solutions.
- + Simpler maintenance requirements compared to conventional automatic processors.
- + Does not require use of a cleaning film.
- + Virtually impossible for film to be lost during processing.
- + Automatically shuts off after two hours of non-use.
- + MSDS provided with each purchase of new solutions.
- + Less expensive than conventional automatic-film processors.
- + Has a five-year limited warranty.

**DISADVANTAGES:**

- Reliability uncertain--processing tank required two separate repairs during initial operation.
- Lack of continuous feed capability will hamper ability to process large number of radiographs quickly.
- Cannot simultaneously process different-sized films.
- Endodontic processing feature very cumbersome and time-intensive.
- Processing time increases with each use as solutions age.
- No automatic solution replenishment - requires more frequent solution change as compared to traditional automatic-film processors.
- Although less time intensive, does require more frequent maintenance than conventional automatic-film processors.

**SUMMARY AND CONCLUSIONS:**

The ImageMax Automatic X-ray Film Processor features an innovative new concept in dental x-ray processing. Instead of a conventional roller-based, continuous-feed mechanism, radiographs remain stationary in a central-processing tank where they undergo a five-step processing procedure. All solutions are delivered to the film with processing controlled by an on-board microprocessor. The unit was found to be well constructed and consistently produced high-quality radiographs without the artifacts produced by roller-based processors. Self-contained, the ImageMax requires only an electrical source to operate. Maintenance requirements are less time intensive as compared to conventional automatic-film processors, but due to the lack of an automatic-replenishment system, more frequent maintenance is required. Drawbacks include the inability to process a large number of radiographs quickly and the need to separately process different-sized films. In addition, the endodontic film-processing feature was found to be cumbersome and time-intensive to use. The ImageMax may be best indicated for low-volume clinical situations while its lightweight, self-contained features may also make it a viable option for remote satellite locations and/or field conditions. The ImageMax is a well-engineered, unique radiographic processor that may function well as an adjunct to an existing automatic processor. The **ImageMax** is rated **Acceptable** for use by the federal dental services.